AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A receiving device comprising ~~a receiving unit, a delay unit, an estimation unit, an equalizer/demodulator, and a replica unit, wherein~~:

[[said]] a receiving unit which receives a signal arriving through a transmission path, as a reception signal;

[[said]] a delay unit which outputs a delay signal which is obtained by delaying the reception signal by a predetermined delay time;

[[said]] an estimation unit which estimates a transmission path characteristic;

[[said]] an equalizer/demodulator which compensates for the delay signal with the estimated transmission path characteristic, demodulates a compensation result, and outputs a demodulation result as a transmission signal;

[[said]] a replica unit which compensates for the reception signal with the previously estimated transmission path characteristic, demodulates a compensation result, modulates a demodulation result, and outputs a modulation result as a replica signal; and

[[said]] an estimation unit which estimates a transmission path characteristic by comparing the reception signal with the replica signal; [[and]]

wherein the predetermined delay time is longer than a symbol time length of the reception signal and is equal to ~~or smaller than~~ a time required for processes by said replica unit and said estimation unit, in order for said equalizer/demodulator to compensate for each symbol of the reception signal with the transmission path characteristic which is estimated, by said estimation unit, for the symbol to be compensated for by said equalizer/demodulator.

2. (Canceled)

3. (Currently Amended) The receiving device according to claim 1,

wherein said estimation unit estimates a transmission path characteristic by [[“]] comparing a signal obtained by delaying the reception signal by the predetermined delay time with the replica signal [[”]] instead of by [[“]] comparing the reception signal with the replica signal [[”]].

4. (Original) The receiving device according to claim 1,

wherein said estimation unit averages a time series of characteristics obtained as a result of the comparing by a predetermined time length, and regards the time series of characteristics obtained as a result of the averaging as the transmission path characteristic.

5. (Original) The receiving device according to claim 1, wherein:

said receiving device uses orthogonal frequency division multiplex; and

said delay unit, said estimation unit, said equalizer/demodulator, and said replica unit perform their processes for each carrier frequency of the orthogonal frequency division multiplex.

6. (Currently Amended) A receiving method comprising ~~a receiving step, a delaying step, an estimating step, an equalizing/demodulating step, and a replica step, wherein~~:

[[said]] a receiving step which receives a signal arriving through a transmission path as a reception signal;

[[said]] a delaying step which outputs a delay signal obtained by delaying the reception signal by a predetermined delay time;

[[said]] an estimating step which estimates a transmission path characteristic;

[[said]] an equalizing/demodulating step which compensates for the delay signal with the transmission path characteristic, demodulates a compensation result, and outputs a demodulation result as a transmission signal;

[[said]] a replica step which compensates for the reception signal with the previously estimated transmission path characteristic, demodulates a compensation result, modulates a demodulation result, and outputs a modulation result as a replica signal; and

[[said]] an estimation step which estimates a transmission path characteristic by comparing the reception signal with the replica signal; [[and]]

wherein the predetermined delay time is longer than a symbol time length of the reception signal and is equal to ~~or smaller than~~ a time required for processes in said replica step and said estimating step, in order to compensate, in said equalizing/demodulating step, for each symbol of the reception signal with the transmission path characteristic which is estimated, in said estimating step, for the symbol to be compensated for in said equalizing/demodulating step.

7. (Canceled)

8. (Currently Amended) The receiving method according to claim 6,

wherein said estimating step estimates a transmission path characteristic by [["]] comparing a signal obtained by delaying the reception signal by the predetermined delay time with the replica signal [["]] instead of by [["]] comparing the reception signal with the replica signal [["]].

9. (Original) The receiving method according to claim 6,

wherein said estimating step averages a time series of characteristics obtained as a result of the comparing by a predetermined time length, and regards the time series of characteristics obtained as a result of the averaging as the transmission path characteristic.

10. (Original) The receiving method according to claim 6, wherein:

said receiving method uses orthogonal frequency division multiplex; and

said delaying step, said estimating step, said equalizing/demodulating step, and said replica step perform processes for each carrier frequency of the orthogonal frequency division multiplex.

11. (Canceled)

12. (Canceled)